



PCT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/743,905

DATE: 02/11/2003

TIME: 14:13:11

Input Set : A:\SEQLISTVANM190001APC.TXT

Output Set: N:\CRF4\02112003\I743905.raw

4 <11> APPLICANT: Lischer, E.
 5 Shilley, Hubert
 6 Richards, Ken
 7 Jonard, Gerard
 9 <120> TITLE OF INVENTION: METHOD OF GENETIC MODIFICATION OF A WILD
 10 TYPE VIRAL SEQUENCE
 12 <130> FILE REFERENCE: VANM190.001APC
 14 <140> CURRENT APPLICATION NUMBER: US 09/743,905
 C--> 15 <141> CURRENT FILING DATE: 2002-03-19
 17 <150> PRIOR APPLICATION NUMBER: EP 98870159.5
 18 <151> PRIOR FILING DATE: 1998-07-10
 20 <150> PRIOR APPLICATION NUMBER: PCT BE99/00089
 21 <151> PRIOR FILING DATE: 1999-07-09
 23 <160> NUMBER OF SEQ ID NOS: 6
 25 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 27 <210> SEQ ID NO: 1
 28 <211> LENGTH: 399
 29 <212> TYPE: DNA
 30 <213> ORGANISM: Artificial Sequence
 32 <220> FEATURE:
 33 <223> OTHER INFORMATION: genetically modified TGB-3 viral sequence
 W--> 35 <221> NAME/KEY: CDS
 36 <222> LOCATION: (1)...(399)
 W--> 38 <400> 1

ENTERED

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39 atg gtc att ggc att cca gta acg tta tct aat att gta tta tac ata 48
40 Met Val Leu Val Ala Val Ala Leu Ser Asn Ile Val Leu Tyr Ile
41 1 5 10 15
43 gtt acc ggt tat att att gtc agt atc ttg tac tca cag ttt ttc acc 96
44 Val Ala Gly Cys Val Val Val Ser Met Leu Tyr Ser Pro Phe Phe Ser
45 20 25 30
47 acc gat att aac aac tcc acc gat tat acc gaa gaa att ttt aac gag acc 144
48 Asn Asp Val Lys Ala Ser Ser Tyr Ala Gly Ala Ile Phe Lys Gly Ser
49 35 40 45
51 att ggt atc atc acc acc acc att tct ttt acc aaat ttt gtt acc ttt cat 192
52 Gly Cys Ile Met Asp Arg Arg Ser Phe Ala Glu Phe Gly Ser Cys Asp
53 50 55 60
55 att cca acc atc tta ttt ttt ttt ttt ttt ttt ttt ttt ttt ttt ttt 240
56 Ile Leu Lys His Val Ala His Ser Ile Thr Lys Val Ala Thr Lys His
57 65 70 75
59 acc att att att att att att att att att att att att att att att 288
60 His Asp Val Asp Ile Met Val Lys Arg Gly His Val Thr Val Arg Val
61 80 85 90
63 att att att att att att att att att att att att att att att att 336
64 Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile 399

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/743,905

DATE: 02/11/2013

TIME: 14:13:16

Input File : A:\SEQLISTVANM190001APC.TXT

Output File : N:\CRF4\02112003\I743905.raw

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64 Val Thr Leu Thr Glu Thr Ile Phe Ile Ile Leu Ser Arg Leu Phe Gly
65      100      105      110
66 att ggg ggt gtt ttg ttc atg ata tgt tta atg tct ata att tgg ttt 114
67 Leu Ala Val Phe Leu Phe Met Ile Cys Leu Met Ser Ile Val Trp Phe
68      115      120      125
69 tgg tat cat aga taa
70 Trp Tyr His Arg
71      130

```

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76 <210> SEQ ID NO: 2
77 <211> LENGTH: 132
78 <212> TYPE: PRP
79 <213> ORGANISM: Artificial Sequence
81 <220> FEATURE:
82 <223> OTHER INFORMATION: genetically modified TGB-3 viral sequence
84 <400> SEQUENCE: 2

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```

85 Met Val Leu Val Val Ala Val Ala Leu Ser Asn Ile Val Leu Tyr Ile
86 1      5      10      15
87 Val Ala Gly Cys Val Val Val Ser Met Leu Tyr Ser Pro Phe Phe Ser
88      20      25      30
89 Asn Asp Val Lys Ala Ser Ser Tyr Ala Gly Ala Ile Phe Lys Gly Ser
90      35      40      45
91 Gly Cys Ile Met Asp Arg Asn Ser Phe Ala Gln Phe Gly Ser Cys Asp
92      50      55      60
93 Ile Pro Lys His Val Ala Glu Ser Ile Thr Lys Val Ala Thr Lys Glu
94 65      70      75      80
95 His Asp Val Asp Ile Met Val Lys Arg Gly Glu Val Thr Val Arg Val
96      85      90      95
97 Val Thr Leu Thr Glu Thr Ile Phe Ile Ile Leu Ser Arg Leu Phe Gly
98      100      105      110
99 Leu Ala Val Phe Leu Phe Met Ile Cys Leu Met Ser Ile Val Trp Phe
100      115      120      125
101 Trp Tyr His Arg
102      130

```

```

105 <210> SEQ ID NO: 3
106 <211> LENGTH: 399
107 <212> TYPE: DNA
108 <213> ORGANISM: Artificial Sequence
110 <220> FEATURE:
111 <223> OTHER INFORMATION: genetically modified TGB-3 viral sequence

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W--> 113 <221> NAME/KEY: CDS

114 <225> LOCATION: (1)...(399)

W--> 116 <400> 3

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117 att gtc att ggg ggt aaa ata gat tta tct gat att ata ttc taa ata 48
118 Met Val Leu Val Val Lys Val Asp Leu Ser Asn Ile Val Leu Tyr Ile
119 1      5      10      15
120 att ggt gtt gtt gtt gtt gtt gtt gtt gtt gtt gtt gtt gtt gtt gtt 96
121 Val Ala Gly Cys Val Val Val Ser Met Leu Tyr Ser Ile Phe Phe Phe
122      20      25      30
123 att ggt gtt gtt gtt gtt gtt gtt gtt gtt gtt gtt gtt gtt gtt gtt 144

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/743,905

DATE: 05/11/2003

TIME: 14:03:10

Input Seq : A:\SEQLISTVANM190001APC.TXT

Output Seq : N:\CRF4\02112003\I743905.raw

```

126 Asn Asp Val Lys Ala Ser Ser Tyr Ala Gly Ala Ile Phe Lys Gly Ser
127      35      40      45
129 ggt tgt att gta gaa gga ggt gaa tgg ttt ggt gaa ttt ggg agt tgg gat 141
130 Gly Cys Ile Met Ala Ala Asn Ser Phe Ala Gln Phe Gly Ser Cys Asp
131      50      55      60
133 att taa gaa gat gta gaa gaa gaa gaa gaa gaa gaa gaa gaa gaa gaa 143
134 Ile Phe Lys His Val Ala Gln Ser Ile Thr Lys Val Ala Thr Lys Glu
135      65      70      75      80
137 gaa gat gtt gaa ata atg gta gaa gaa ggt ggt gaa ggt ggt ggt ggt 145
138 His Asp Val Asp Ile Met Val Lys Arg Gly Glu Val Thr Val Arg Val
139      85      90      95
141 gtt aat gaa acc gaa ggt att ttt ata ata tta tct aga ttg ttt ggt 147
142 Val Thr Leu Thr Glu Thr Ile Phe Ile Ile Leu Ser Arg Leu Phe Gly
143      100      105      110
145 ttg ggg gtt ttt ttg ttc atg ata tgt tta atg tct ata gtt tgg ttt 149
146 Leu Ala Val Phe Leu Phe Met Ile Cys Leu Met Ser Ile Val Trp Phe
147      115      120      125
149 tgg tat cat aga taa 151
150 Trp Tyr His Arg *
151      130

```

154 <210> SEQ ID NO: 4

155 <211> LENGTH: 132

156 <212> TYPE: PRT

157 <213> ORGANISM: Artificial Sequence

159 <220> FEATURE:

160 <223> OTHER INFORMATION: genetically modified TGB-3 viral sequence

162 <400> SEQUENCE: 4

```

163 Met Val Leu Val Val Lys Val Asp Leu Ser Asn Ile Val Leu Tyr Ile
164      1      5      10      15
165 Val Ala Gly Cys Val Val Val Ser Met Leu Tyr Ser Pro Phe Phe Ser
166      20      25      30
167 Asn Asp Val Lys Ala Ser Ser Tyr Ala Gly Ala Ile Phe Lys Gly Ser
168      35      40      45
169 Gly Cys Ile Met Ala Ala Asn Ser Phe Ala Gln Phe Gly Ser Cys Asp
170      50      55      60
171 Ile Phe Lys His Val Ala Gln Ser Ile Thr Lys Val Ala Thr Lys Glu
172      65      70      75      80
173 His Asp Val Asp Ile Met Val Lys Arg Gly Glu Val Thr Val Arg Val
174      85      90      95
175 Val Thr Leu Thr Glu Thr Ile Phe Ile Ile Leu Ser Arg Leu Phe Gly
176      100      105      110
177 Leu Ala Val Phe Leu Phe Met Ile Cys Leu Met Ser Ile Val Trp Phe
178      115      120      125
179 Trp Tyr His Arg
180      130

```

182 <410> SEQ ID NO: 5

183 <411> LENGTH: ***

184 <412> TYPE: CNA

185 <413> ORGANISM: Artificial Sequence

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/743,905

DATE: 12/11/2003

TIME: 14:13:10

Input Seq : A:\SEQLISTVANM190001APC.TXT

Output Seq : N:\CRF4\02112003\I743905.raw

188 <220> FEATURE:

189 <223> OTHER INFORMATION: genetically modified TGB-3 viral sequence

W--> 191 <221> NAME/KEY: CDS

192 <222> LOCATION: (1)...(399)

W--> 194 <400> 5

```

195 atg aac ctt gta ttt aaa gta gat tta ttt aat att gta tta tac ata 47
196 Met Val Leu Val Val Lys Val Asp Leu Ser Asn Ile Val Leu Tyr Ile
197 1 5 10 15
198 gtt ggt ggt tgt gtt ttt gta agt atg tta tac tca aag ttt ttc aag 46
199 Val Ala Gly Cys Val Val Val Ser Met Leu Tyr Ser Pro Phe Phe Ser
200 20 25 30
201 aac gat gtt aaa gag tcc agc tat acg gga gca att ttt aag ggg agc 144
202 Asn Asp Val Lys Ala Ser Ser Tyr Ala Gly Ala Ile Phe Lys Gly Ser
203 35 40 45
204 ggc tgt atc atg gac agg aat tgg ttt ggt caa ttt ggg agt tgc gat 192
205 Gly Cys Ile Met Asp Arg Asn Ser Phe Ala Gln Phe Gly Ser Cys Asp
206 50 55 60
207 att cca aag cat gta gcc gag tcc atc act aag gtt gcc acc aaa gag 240
208 Ile Pro Lys His Val Ala Glu Ser Ile Thr Lys Val Ala Thr Lys Glu
209 65 70 75 80
210 cac gat gtt gac ata atg gta aaa agg ggt gaa gtg acc gtt cgt gtt 288
211 His Asp Val Asp Ile Met Val Lys Arg Gly Glu Val Thr Val Arg Val
212 85 90 95
213 gtg act ctc acc gaa act att ttt ata ata tta tct aga ttg ttt aat 336
214 Val Thr Leu Thr Glu Thr Ile Phe Ile Ile Leu Ser Arg Leu Phe Gly
215 100 105 110
216 ttg gat gat ttt ttg ttc atg ata tct tta atg tct ata gtt tgg ttt 384
217 Leu Asp Asp Phe Leu Phe Met Ile Cys Leu Met Ser Ile Val Trp Phe
218 115 120 125
219 tgg tat cat aga taa 399
220 Trp Tyr His Arg *
221 130

```

232 <210> SEQ ID NO: 6

233 <211> LENGTH: 132

234 <212> TYPE: PRT

235 <213> ORGANISM: Artificial Sequence

237 <220> FEATURE:

238 <223> OTHER INFORMATION: genetically modified TGB-3 viral sequence

240 <400> SEQUENCE: C

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241 Met Val Leu Val Val Lys Val Asp Leu Ser Asn Ile Val Leu Tyr Ile
242 1 5 10 15
243 Val Ala Gly Cys Val Val Val Ser Met Leu Tyr Ser Pro Phe Phe Ser
244 20 25 30
245 Asn Asp Val Lys Ala Ser Ser Tyr Ala Gly Ala Ile Phe Lys Gly Ser
246 35 40 45
247 Gly Cys Ile Met Asp Arg Asn Ser Ile Ala Gln Phe Gly Ser Cys Asp
248 50 55 60
249 Ile Ile Lys His Val Ala Thr Ser Ile Thr Lys Val Ala Thr Lys Glu
250 65 70 75

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/743,905

DATE: 01/11/2003

TIME: 14:09:17

Input File : A:\SEQLISTVANM190001APC.TXT

Output Set: N:\CRF4\02112003\I743905.raw

```

251 His Asp Val Asp Ile Met Val Lys Arg Gly His Val Thr Val Arg Val
252      85      90
253 Val Thr Leu Thr Glu Thr Ile Phe Ile Ile Leu Ser Arg Leu Phe Gly
254      100      110
255 Leu Asp Asp Phe Leu Phe Met Ile Cys Leu Met Ser Ile Val Trp Phe
256      115      125
257 Trp Tyr His Arg
258      130

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/743,905

DATE: 02/11/2003

TIME: 14:03:12

Input Set: A:\SEQLISTVANM190001APC.TXT

Output Set: N:\CRF4\02112003\I743905.raw

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:35 M:61 W: Numeric Fields not Ordered, <271> Sort in ascending order!
L:35 M:61 W: Mandatory Feature missing, <271> Tag not found for SEQ ID#1
L:115 M:181 W: Numeric Fields not Ordered, <181> Sort in ascending order!
L:115 M:181 W: Mandatory Feature missing, <181> Tag not found for SEQ ID#1
L:191 M:181 W: Numeric Fields not Ordered, <181> Sort in ascending order!
L:191 M:181 W: Mandatory Feature missing, <181> Tag not found for SEQ ID#1
L:194 M:181 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#1